# **Samsung Pay**

**Samsung Pay** is a <u>mobile payment</u> and <u>digital wallet</u> service by <u>Samsung Electronics</u> that lets users make payments using compatible phones and other Samsung-produced devices. The service supports <u>contactless</u> payments using <u>near-field communications</u> (NFC), but also supports <u>magnetic stripe</u>—only <u>payment terminals</u> by incorporating <u>magnetic secure transmission</u>. In countries like India it also supports bill payments.

The service was launched in <u>South Korea</u> on August 20, 2015 and in the <u>United States</u> on September 28 of the same year. In 2016, at the International <u>Consumer Electronics Show</u> (CES 2016), the telecommunications company announced that Samsung Pay would be coming soon to a variety of banks in <u>Australia</u>, <u>Brazil</u>, <u>Spain</u> and <u>Singapore</u>. [3]

# **Contents** Service Security **Availability** Comparison with instant payment Compatible devices Flagship smartphones Galaxy S **Galaxy Note** Galaxy Z Mid-range smartphones Galaxy A Galaxy J Galaxy C and others **Smartwatches** See also References

### Service



Samsung Pay was developed from the intellectual property of LoopPay, a <u>crowdfunded</u> <u>startup company</u> that Samsung acquired in February 2015 for an estimated \$300m, one of the largest acquisitions made by the firm. The service supports both NFC-based mobile payment

Website	samsung.com/global
	/galaxy/samsung-pay/ (htt
	p://samsung.com/global/g
	alaxy/samsung-pay/)

systems (which are prioritized when support is detected), as well as those that only support <u>magnetic stripes</u>. This is accomplished via a technology known as <u>magnetic secure transmission</u> (MST), which emulates the swipe of a permanent magnet strip past a reader by generating the near-field magnetic waveform directly. LoopPay's developers stated that because of this design, the technology would work with "nearly 90%" of all <u>point-of-sale</u> units in the United States (which excludes terminals that require the card to be physically inserted into a slot in order to function). [1]

On phones, the Samsung Pay menu is launched by swiping from the bottom of the screen. Different <u>credit</u>, <u>debit</u> and <u>loyalty cards</u> can be loaded into the app, and selected by swiping between them on-screen. [4]

In South Korea, Samsung Pay can be used for <u>online payments</u>[5] and to withdraw money on selected banks' ATMs. [6]

In <u>Mainland China</u>, Samsung Pay supports In-app payments, <u>QR code payments</u> (<u>Alipay</u>, and <u>WeChat Pay</u>) and <u>public transportation cards of Beijing</u>, Shanghai, Guangzhou, Shenzhen, and other cities.

In Hong Kong, Samsung Pay can be linked with <u>Octopus cards</u>, called Smart Octopus, to make electronic payments with stored value service for payments in online or offline systems. [7]

In India, Samsung Pay supports the government's  $\underline{UPI}$  /  $\underline{BharatQR}$ . It also supports bill payments via the Bharat Bill Payment System. [2]

In May 2020, Samsung Pay unveiled Samsung Money by SoFi, a mobile-first money management experience that makes available a cash management account and accompanying <u>Mastercard</u> debit card via the Samsung Pay app, in partnership with fintech company <u>SoFi.[9]</u>

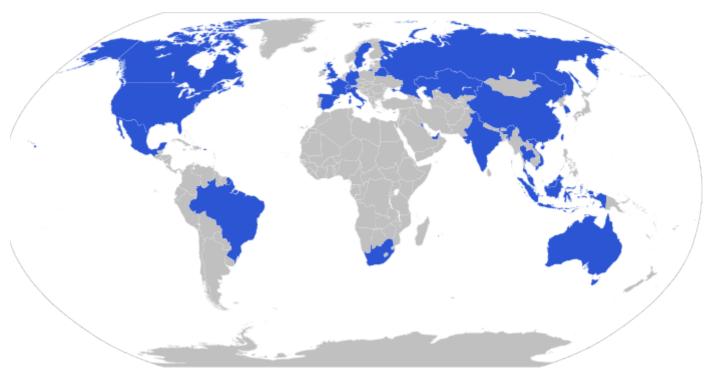
# **Security**

Samsung Pay's security measures are based on <u>Samsung Knox</u> and <u>ARM TrustZone</u> technologies; credit card information is stored in a secure <u>token</u>. Payments must be authenticated using a fingerprint scan or passcode. [10][11]

In August 2016, security researcher Salvador Mendoza disclosed a potential flaw with Samsung Pay, arguing that its security tokens were not sufficiently randomized and could become predictable. He also designed a handheld device that could be used to  $\underline{\text{skim}}$  magnetic secure transmission tokens, and another which could spoof magnetic stripes on actual card readers using the token. Samsung responded to the report, stating that "If at any time there is a potential vulnerability, we will act promptly to investigate and resolve the issue". [12]

Samsung Pay will not work with devices whose Knox warranty bit is tripped.

### **Availability**



Global availability of Samsung Pay

Date	
(In chronological Order)	Support for payment cards issued in
August 20, 2015	South Korea <sup>[13]</sup>
September 28, 2015	United States <sup>[13][14]</sup>
March 29, 2016	China <sup>[15][16]</sup>
June 2, 2016	Spain <sup>[17]</sup>
June 15, 2016	Australia <sup>[18]</sup>
June 16, 2016	Singapore <sup>[19]</sup>
July 13, 2016	Puerto Rico <sup>[20]</sup>
July 19, 2016	Brazil <sup>[21]</sup>
September 28, 2016	Russia <sup>[22]</sup>
November 8, 2016	<b>[</b> ■ Canada  [3][23]
February 8, 2017	Thailand $^{[24]}$
February 24, 2017	Malaysia <sup>[25]</sup>
March 22, 2017	India <sup>[26]</sup>
April 27, 2017	Sweden <sup>[27]</sup>
	United Arab Emirates <sup>[28]</sup>
May 16, 2017	United Kingdom <sup>[29]</sup>
May 23, 2017	Switzerland <sup>[30]</sup>
	Taiwan <sup>[31]</sup>
May 25, 2017	₩ Hong Kong <sup>[32]</sup>
September 28, 2017	▼ Vietnam <sup>[33]</sup>
November 15, 2017	Belarus <sup>[34]</sup>
January 30, 2018	Mexico <sup>[35]</sup>
March 22, 2018	Italy <sup>[36][37]</sup>
April 26, 2018	France <sup>[38]</sup>
August 21, 2018	South Africa <sup>[39][40]</sup>
March 23, 2019	Indonesia <sup>[41]</sup>
January 21, 2020	Kazakhstan <sup>[42]</sup>
September 20, 2020	Kuwait <sup>[43]</sup>
October 28, 2020	Germany <sup>[44]</sup>

In May 2016, it was reported that Samsung was developing a spin-off of the service known as Samsung Pay Mini. This service will be used for online payments only, and is also being targeted as a multi-platform service. 45

In January 2017, Samsung has confirmed that Samsung Pay Mini will not only work on its Galaxy devices but on other Android phones as well, as long as they are running <u>Android Lollipop</u> or above and have a screen resolution of  $1280 \times 720$  pixels or higher. [46][47]

In June 2017, Samsung launched Samsung Pay Mini and currently available on Galaxy J7 Max/On Max (in India) $^{[48]}$ 

Availability is limited not just on the basis of where the payment card is issued, but also on the basis of the phone's region (CSC) code. Thus a phone made for an unsupported region can never use Samsung Pay even if it physically resides in a supported region and has a local SIM card. The rather unrelated error "Connection error. Unable to connect to Samsung Pay temporarily. Try again later." is how Samsung Pay reports this problem.

In June 2020, Samsung announced a partnership between Samsung Pay, <u>Curve</u> and <u>Mastercard</u> for the launch of Samsung Pay Card in the UK and more EE countries where Curve has customers later in 2020.

# **Comparison with instant payment**

In <u>digital wallet</u>-based payment systems like <u>PayPal</u>, <u>Apple Pay</u>, <u>AliPay</u>, <u>WeChat Pay</u>, etc. users receive immediate notification of the transaction, but funds are transferred at best in the next business day. The settlement time depends on the payment method chosen by the customer, while for <u>instant payment</u> systems, the funds are transferred within seconds or minutes.

## Compatible devices

### Flagship smartphones

### **Galaxy S**

- Samsung Galaxy S6 (including S6 Edge, Active, and Edge+; S6, S6 Edge and S6 Active; MST technology limited to some markets, NFC technology available on all models)
- Samsung Galaxy S7 (including S7 Edge & Active)
- Samsung Galaxy S8 (including S8+ & Active)
- Samsung Galaxy S9 (including S9+)
- Samsung Galaxy S10 (including S10e, S10+, S10 5G and S10 Lite) (NFC only for S10 Lite)
- Samsung Galaxy S20 (including S20 5G, S20+, S20+ 5G, S20 Ultra 5G)
- Samsung Galaxy S20 FE (including S20 FE 5G) (NFC Only for S20 FE 5G)
- Samsung Galaxy S21 (including S21+ and S21 Ultra) (NFC Only for all S21 models)

#### **Galaxy Note**

- Samsung Galaxy Note 5
- Samsung Galaxy Note 7 (discontinued as of October 2016)
- Samsung Galaxy Note FE

- Samsung Galaxy Note 8
- Samsung Galaxy Note 9
- Samsung Galaxy Note 10 (including Note 10+, Note 10 5G, Note 10+ 5G and Note 10 Lite)
   (NFC only for Note 10 Lite)
- Samsung Galaxy Note 20 (including Note 20 5G, Note 20 Ultra, Note 20 Ultra 5G)

#### Galaxy Z

- Samsung Galaxy Fold (including Fold 5G)
- Samsung Galaxy Z Flip (including Z Flip 5G)
- Samsung Galaxy Z Fold 2 (including Z Fold 2 5G)

### Mid-range smartphones

#### Galaxy A

- Samsung Galaxy A5 (2016), A7 (2016), A8 (2016), A9 (2016) and A9 Pro (2016)
- Samsung Galaxy A3 (2017), A5 (2017) and A7 (2017)
- Samsung Galaxy A6 / A6+ (only available to selected countries, NFC only)
- Samsung Galaxy A8 (2018) (including A8+ (2018) and A8 Star (2018), NFC only for A8 Star (2018))
- Samsung Galaxy A7 (2018) and A9 (2018) (NFC only)
- Samsung Galaxy A40, A50, A70 and A80 (only available to selected countries, NFC only)
- Samsung Galaxy A30s, A40s, A50s and A70s (NFC only)
- Samsung Galaxy A90 5G (only available to selected countries, NFC only)
- Samsung Galaxy A21, A31, A51 & A51 5G and A71 & A71 5G (NFC only)

#### **Galaxy J**

- Samsung Galaxy J5 & J7 (2016) (only available in selected countries)
- Samsung Galaxy J5 (2017)/J5 Pro (only available to selected countries)
- Samsung Galaxy J7 (2017)/J7 Pro (only available to selected countries)
- Samsung Galaxy J7 Max (2017) (only available to selected countries)

#### Galaxy C and others

Available to Samsung Pay users within Hong Kong, Macau and China.

- Samsung Galaxy C5 and C5 Pro
- Samsung Galaxy C7 and C7 Pro
- Samsung Galaxy C9 and C9 Pro
- Samsung Galaxy On5 (2016) (also known as Galaxy J5 Prime in other countries)
- Samsung Galaxy On7 (2017) (also known as Galaxy J7 Prime in other countries)
- Samsung W2017 (non-Galaxy smartphone)
- Samsung W2018 (non-Galaxy smartphone)

#### **Smartwatches**

- Samsung Gear S2 (NFC only)<sup>[1][4]</sup>
- Samsung Gear S3 (NFC and MST) (it doesn't in some countries such as Spain)
- Samsung Gear Sport (NFC only)
- Samsung Galaxy Watch (NFC only)
- Samsung Galaxy Watch Active (NFC only)
- Samsung Galaxy Watch Active 2 (NFC only)
- Samsung Galaxy Watch 3 (NFC only)

### See also

- WeChat Pay
- Apple Pay
- Google Pay
- Microsoft Pay
- LG Pay
- KakaoPay
- Naver Pay

### References

- 1. "Samsung Pay: What you need to know (FAQ)" (https://www.cnet.com/news/samsung-pay-what -you-need-to-know-faq/). CNET. Retrieved September 2, 2016.
- 2. "Samsung India Introduces 'Bill Payments' on Samsung Pay, Now Pay all Your Utility Bills Securely" (https://news.samsung.com/in/samsung-india-introduces-bill-payments-on-samsung-pay-now-pay-all-your-utility-bills-securely). news.samsung.com. Retrieved January 3, 2018.
- 3. http://www.digitaltrends.com/mobile/samsung-pay-news/
- 4. "Samsung Pay: What is it, how does it work, when is it coming to the UK?" (http://www.pocket-lint.com/news/132981-samsung-pay-what-is-it-how-does-it-work-when-is-it-coming-to-the-uk). *Pocket-lint*. Retrieved September 2, 2016.
- 5. http://www.techtimes.com/articles/154500/20160429/samsung-pay-atm-cash-withdrawals-go-live-but-with-limited-availability-for-now.htm
- 6. J Yeo (August 21, 2015), 삼성페이로 우리은행ATM에서 인출하기 How to withdraw from Wooribank ATM (https://www.youtube.com/watch?v=UU98OtqkQKc), retrieved May 21, 2016
- 7. "Now your phone can replace your Octopus card (if it's a Samsung)" (http://www.scmp.com/new s/hong-kong/economy/article/2123878/hongkongers-will-soon-be-able-use-phones-place-octopus-cards). South China Morning Post. Retrieved December 12, 2017.
- 8. "Samsung Pay Launched in India; UPI Integration Announced" (https://gadgets.ndtv.com/apps/news/samsung-pay-mobile-payment-platform-launched-in-india-upi-integration-announced-1672195). NDTV Gadgets360.com. Retrieved January 3, 2018.
- 9. "Introducing Samsung Money by SoFi: Do More With Your Money" (https://news.samsung.com/us/introducing-samsung-money-samsung-pay-sofi/).
- 10. "First Look: Samsung Galaxy S6, Galaxy S6 Edge Finally Gets a Premium Design" (http://recode.net/2015/03/01/first-look-samsung-galaxy-s-6-galaxy-s-6-edge-finally-gets-a-premium-design/). Re/code. Retrieved March 1, 2015.
- 11. "Loop turns almost any point-of-sale system into a mobile payment machine (hands-on)" (http s://www.engadget.com/2013/10/08/loop-wallet-mobile-payments/). Engadget. Retrieved March 2, 2015.

- 12. "Flaw in Samsung Pay lets hackers wirelessly skim credit cards" (https://www.zdnet.com/article/flaw-in-samsung-pay-lets-hackers-wirelessly-skim-credit-cards/). ZDNet. Retrieved September 2, 2016.
- 13. "Samsung Announces Launch Dates for Groundbreaking Mobile Payment Service: Samsung Pay" (https://news.samsung.com/global/samsung-announces-launch-dates-for-groundbreaking -mobile-payment-service-samsung-pay). Samsung. August 14, 2015.
- 14. "Samsung Mobile Payment Service Samsung Pay, Available Starting Today in the U.S." (http s://news.samsung.com/global/samsung-mobile-payment-service-samsung-pay-available-starting-today-in-the-u-s) Samsung. September 28, 2015.
- 15. "Samsung Pay is Now Available in China with China Union Pay" (https://news.samsung.com/g lobal/samsung-pay-is-now-available-in-china-with-china-union-pay). Samsung. March 29, 2016.
- 16. Catherine Shu (March 29, 2016). "Samsung Pay just launched in China, but already faces fierce competition" (https://techcrunch.com/2016/03/28/samsung-pay-just-launched-in-china-bu t-already-faces-fierce-competition/). techcrunch.com. Retrieved March 24, 2018.
- 17. "Samsung Pay is Now Available in Spain" (https://news.samsung.com/global/samsung-pay-is-now-available-in-spain). Samsung. June 2, 2016.
- 18. "Samsung Pay is Now Available in Australia" (https://news.samsung.com/global/samsung-pay-is-now-available-in-australia). Samsung. June 15, 2016.
- 19. "Samsung Pay Launches in Singapore" (https://news.samsung.com/global/samsung-pay-launches-in-singapore). Samsung. June 10, 2016.
- 20. "Samsung Pay Launches in Puerto Rico" (https://news.samsung.com/global/samsung-pay-launches-in-puerto-rico). Samsung. July 13, 2016.
- 21. "Samsung Pay Launches in Brazil" (https://news.samsung.com/global/samsung-pay-launches-in-brazil). Samsung. July 15, 2016.
- 22. Dominik Bosnjak (September 30, 2016). <u>"Samsung Pay's Global Footprint Now Includes Russia"</u> (http://www.androidheadlines.com/2016/09/samsung-pays-global-footprint-now-includes-russia.html). AndroidHeadlines.
- 23. "Samsung Pay Launch in Canada: CIBC Gets Beta Access" (http://www.iphoneincanada.ca/ne ws/samsung-pay-early-access-cibc-customers/). iPhone in Canada. November 8, 2016. Retrieved June 3, 2017.
- 24. "Samsung Pay Launches in Thailand" (https://news.samsung.com/global/samsung-pay-launches-in-thailand). Samsung. February 8, 2017. Retrieved September 3, 2017.
- 25. "Electronics giant holding roadshow on new payment method" (http://www.thestar.com.my/metro/community/2017/02/22/electronics-giant-holding-roadshow-on-new-payment-method/). *The Star.* February 22, 2017.
- 26. "Samsung Pay launched in India" (http://www.gsmarena.com/samsung\_pay\_launched\_in\_india a-blog-23792.php). GSMArena. March 6, 2017.
- 27. Rian Boden (March 9, 2017). "Sweden becomes first Nordic country to get Samsung Pay" (http s://www.nfcworld.com/2017/03/09/350800/sweden-becomes-first-nordic-country-get-samsung-pay/). NFC World.
- 28. ASIF S. (April 27, 2017). "Samsung Pay expands to Hong Kong, Sweden, Switzerland, and the UAE" (https://www.sammobile.com/2017/04/27/samsung-pay-expands-to-hong-kong-sweden-switzerland-and-the-uae/). SamMobile.
- 29. Samuel Gibbs (May 6, 2017). <u>"Samsung Pay launches in UK to take on Apple Pay and Google Android Pay"</u> (https://www.theguardian.com/technology/2017/may/16/samsung-pay-mobile-pay ments-galaxy-mastercard). The Guardian. Retrieved September 3, 2017.
- 30. "Samsung Pay gibts jetzt auch in der Schweiz" (https://www.tagesanzeiger.ch/digital/mobil/Samsung-Pay-gibts-jetzt-auch-in-der-Schweiz/story/18168387) (in German). Tages-Anzeiger. April 27, 2017. Retrieved September 3, 2017.

- 31. George Liao (May 23, 2017). "Samsung Pay gets rolling in Taiwan" (https://www.taiwannews.c om.tw/en/news/3170635). Taiwan News. Retrieved September 3, 2017.
- 32. Enoch Yiu (May 25, 2017). "Late-comer Samsung Pay goes live in Hong Kong" (http://www.sc\_mp.com/business/banking-finance/article/2095670/late-comer-samsung-pay-goes-live-hong-kong/). South China Morning Post.
- 33. "Samsung steps into Vietnam's financial services sector" (http://e.theleader.vn/samsung-steps-into-vietnams-financial-services-sector-20170912151715538.htm). Retrieved September 13, 2017.
- 34. "С 15 ноября белорусы смогут платить смартфоном или часами" (https://42.tut.by/567426) (in Russian). Retrieved November 14, 2017.
- 35. "Samsung Pay goes live in Mexico" (https://www.nfcworld.com/2017/11/21/355657/samsung-pay-goes-live-mexico/). NFC World. Retrieved November 21, 2017.
- 36. "Samsung Pay launched in Italy" (https://www.sammobile.com/news/samsung-pay-launched-in-italy/). SamMobile. Retrieved March 22, 2018.
- 37. Rita El Khoury (March 22, 2018). "Samsung Pay launches today in Italy" (https://www.androidpolice.com/2018/03/22/samsung-pay-launches-today-italy/). androidpolice.com. Retrieved March 22, 2018.
- 38. "Samsung Pay may have quietly gone live in France" (https://www.sammobile.com/2018/04/26/samsung-pay-may-have-quietly-gone-live-in-france/). SamMobile. Retrieved April 27, 2018.
- 39. "Samsung Pay Launch in South Africa" (http://www.samsung.com/za/samsung-pay/). Samsung.
- 40. "Samsung Pay early access now live" (https://www.samsung.com/za/samsung-pay/). Samsung. Retrieved July 31, 2018.
- 41. Rahman, Adi Fida. "Masuk Indonesia, Samsung Pay Dikembangkan Anak Bangsa" (https://inet.detik.com/consumer/d-4480517/masuk-indonesia-samsung-pay-dikembangkan-anak-bangsa). detikinet (in Indonesian). Retrieved July 13, 2019.
- 42. "Samsung Pay a convenient and secure payment service" (https://www.samsung.com/kz\_ru/a pps/mobile/samsungpay) (in Russian). Samsung Official Website.
- 43. https://www.samsung.com/ae/samsung-pay/ Samsung Pay: Supported Banks: Kuwait
- 44. "Samsung Pay is now available in Germany" (https://www.samsung.com/de/apps/samsung-pay) (in German). Samsung Official Website.
- 45. "Samsung Pay Mini coming to other Androids, iPhone and desktop" (http://www.gsmarena.com/samsung\_pay\_mini\_coming\_to\_other\_androids\_iphone\_and\_desktop-blog-18451.php).

  GSMArena. Retrieved September 2, 2016.
- 46. <a href="http://www.androidcentral.com/samsung-pay-mini-now-official-south-korea-will-be-coming-all-android-phones">http://www.androidcentral.com/samsung-pay-mini-now-official-south-korea-will-be-coming-all-android-phones</a>
- 47. http://www.zdnet.com/article/samsung-pay-mini-to-launch-for-android/
- 48. http://www.samsung.com/in/samsung-pay/mini/

Retrieved from "https://en.wikipedia.org/w/index.php?title=Samsung Pay&oldid=1013753489"

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